



Claims/What Is Claimed:

Claim 1. A two piece endotracheal portable intubation device comprising: a first piece comprising a plastic housing containing herein a, heavy duty rechargeable battery powering the entire system, external source charging port, video output port, on/off switch and an electrical connector extending outwards from a first end of said power housing, a first end extends proximally as a hinged/swivel bracket supporting a miniature color LCD (Liquid Crystal Display) screen, comprising an viewing assembly can be adjusted into a plurality of angular orientations with respect to said housing, said swivel LCD screen is in a functional electrical communication, via second end of power housing assembly when the two piece unit is functionally assembled by introduction into proximal shroud of a second piece, a rigid fiber scabbard, provides a matching electrical connection and continuation to distal terminal edge of such rigid fiber scabbard, wherein a plurality of strategically spaced apart openings are located: a first one, comprises a CMOS (Complementary Metal Oxide Semiconductor) camera sealingly positioned and angulated, a second one comprises a cool day light LED (Light Emitting Diode) sealingly assembled and angled to illuminate the field of view of interest, a third one comprises a distal open port in fluid flow communication with a proximal vacuum/ Oxygen external source fitting via a flexible polymer tubular conduit extending through the length of said rigid curved fiber scabbard, alongside image conducting system and electrical supply , both extending from a terminal end to proximal end of said rigid curved fiber scabbard with a proximal shroud and electrical connection to power source and external LCD screen assembly, wherein said scabbard comprises a curved structure shaped and molded to generally accommodate the anatomical topography of the

throat structures of a patient: a fourth one comprises an incompletely formed dorsal endotracheal tube pre-loading channel extending along the distal curved portion of said scabbard with a dorsal slit opening with interdigitating fingers equidistantly separating their opposite borders wherein a plurality of endotracheal tube sizes may be removably received and ultimately removed through the space apart interdigitating fingers by using gentle finger wedge pressure between the endotracheal tube and the interdigitating fingers, thus removing the entire hand held field video laryngoscope, leaving behind the endotracheal tube in place, said scabbard's narrower distal end, extends past a terminal edge surface, comprising a short appendage, an epiglottis sweeper mechanism, which holds the epiglottis in place, exposing the vocal cords for intubation, by pushing the proximal end of the preloaded tube to exit out of the pre-loading channel and directed into the trachea, under bend pressure applied to the semi flexible endotracheal tube by the distal scabbard's curvature, said rigid and curved scabbard slides back over the endotracheal tube secured inside the trachea, to reach the teeth line, the tube is then removed from the loading channel by finger wedge pressure between the dorsal slit and the body of the secured in place endotracheal tube, with gentle removal of the tube between the interdigitating fingers and consequent removal of the functional portable video laryngoscope.

Claim 2. A portable endotracheal intubation device according to claim 1 wherein a LCD miniaturized screen allows the visualization of a distal intubation procedure when a two pieces hand held and portable video laryngoscope is functionally assembled.

Claim 3. An endotracheal intubation device according to claim 1 wherein, a rigid curved fiber scabbard formed and shaped to removably receive a semi flexible endotracheal tube, into a dorsal slit channel and permit bend pressure within the channel providing a predictable exit direction at a close distance from target organs.

Claim 4. An endotracheal intubation device according to claim 1, wherein, a rigid curved fiber scabbard provides a proximal connecting shroud formed and shaped to detachably receive a distal portion of said power housing unit with a distal electrical connector within said proximal shroud.

Claim 5. An endotracheal intubation device according to claim 1, further comprising a distal end of rigid curved scabbard with strategically angled cluster of intubation essentials, a CMOS angled miniature camera, miniature LED cool bright day light, open suction port, and a dorsal slit channel capable of exerting bend pressure capable within said endotracheal tube pre loading channel.

Claim 6. An endotracheal intubation device according to claim 1, further comprising a rigid fiber scabbard with a proximal and functionally integrated finger occlusion port for active supply vacuum/Oxygen, through a conduit in fluid flow communication proximally with external Oxygen/vacuum fitting, under shroud, with potential to connect with any external supply sources and a distal end open port.

Claim 7. An endotracheal intubation device according to claim 1, comprises a rigid scabbard with an integrated and incompletely formed channel with dorsal slit and spaced apart interdigitated fingers extending along the curved portion of said rigid scabbard capable of applying bend pressure within, to a semi-flexible plastic endotracheal tube in a ready to exit stance.

Claim 8. An endotracheal intubation device according to claim 7, wherein a plurality of semi flexible endotracheal tube sizes can be preloaded and apply bend pressure within said channel, while in a ready to exit final loading position at the terminal end surface of said scabbard with a predictable channel exiting direction.

Claim 9. An endotracheal intubation device according to claim 8, wherein, removal of an endotracheal tube from a pre loading channel through a dorsal slit opening by applying gentle wedge finger pressure between the outer surface of said channel and the secured endotracheal tube in the trachea, until the secured tube gently snaps out of the loading channel.

Claim 10. An endotracheal intubation device according to claim 1, wherein a rigid fiber scabbard terminal end surface offers a rigid appendage, serving as an epiglottis sweeper, capable of descending in front of the epiglottis, holding the epiglottis back exposing the targeted glottic opening to permit predictable intubation from a close proximity.

Claim 11. An endotracheal intubation device according to claim 1, wherein a rigid curved fiber scabbard clusters and brings into position the essentials for intubation to a close distance from the glottic opening, avoiding free hand, trial and error intubation, by clustering an endotracheal tube under bend pressure for predictable exit direction, cool daylight field illumination and an CMOS camera visualizing the exiting of the endotracheal tube and the actual introduction of the endotracheal tube pushed in between the vocal cords and externally observing the process of endotracheal intubation through an external miniaturized LCD color screen around the patient.

Claim 12. An endotracheal intubation device according to claim 1, wherein, a multiple function rigid plastic power housing assembly encloses a heavy duty rechargeable battery as a single portable power source for the entire system, including an external power source recharge port, video output port, on/off switch and built automatic timed shut off mechanism.

Claim 13. An endotracheal intubation device according to claim 1, comprises a plastic power housing assembly molded and shaped to enclose a long life battery, serving as a handle and extending proximally with hinge/swivel LCD mini screen assembly, and extending distally with a narrower end shaping an electrical connector, shaped and formed as to snugly and removably fit into a distal second piece, a rigid fiber curved scabbard coupling shroud, wherein a functional electrical connection renders a video laryngoscope as multi functional portable intubation device.

Claim 14. An endotracheal intubation device according to claim 1, further comprises a rigid power pack housing assembly extending proximally through a hinged/ swivel bracket assembly supporting a miniature LCD color screen housing providing a plurality of viewing angular positions with respect to said power housing and the patient.

Claim 15 An endotracheal intubation device according to claim 14, comprises a hinge/swivel mechanism providing multiple angular positions LCD screen housing enabling the practitioner to witness and possibly record the distal intubation process from a plurality of positions around the patient.

Claim 16. An endotracheal intubation device according to claim 1, wherein said rigid power housing assembly functionally connected through said proximal end shroud within a rigid fiber scabbard, forms an exterior surface as to effectively accommodate the hand grasp of an operator, facilitating the required initial horizontal position with respect to the lips line and the turning final perpendicular position to the lips line as the intubation process progresses

Claim 17. An endotracheal intubation device according to claim 1, comprises a two rigid pieces functionally connected as a complete assembly devoid of intrinsic wheels, internal hinges, internal changing angulations, internal grips or trigger mechanisms renders a portable field video laryngoscope sparing the patient from further trauma and forceful intubation maneuvers even while neck immobilizing devices are in place.

Claim 18. An endotracheal intubation device according to claim 17, comprises a functional portable video laryngoscope providing an unconventional method to initiate the intubation process during breathing in the pre-hospital or hospital settings by using a functionally assembled video laryngoscope introduced into the patient's mouth with an initial horizontal preference therefore parallel to the lips line of the patient, thus slowly assuming a perpendicular and therefore vertical position in regards to the patient's lip line, adopting an anatomical position as the terminal end of said rigid scabbard, epiglottis sweeper, reaches the base of the tongue and epiglottis.

Claim 19. A portable endotracheal intubation device according to claim 1, wherein rapid serial intubation are possible without risk of microbial cross contamination among patients, rapid detaching and disposing of said rigid fiber scabbard by a quick electrical disconnection from a portable power housing and rapid replacement of disposable fiber scabbard and new endotracheal tube for rapid serial intubations.

Claim 20. An endotracheal intubation device according to claim 1, wherein a hinged/swivel multiple angulations and positions Color LCD frame provides color coded diodes indicating battery charge safety status, during functional assembly and prior to intubation.

Claim 21. An endotracheal intubation device according to claim 1, wherein safety and energy conserving mechanisms are built in where an automatic shut off mechanism permits

a portable video laryngoscope battery charge conservation when left unattended and functionally assembled, but a quick on off maneuver would restore electrical functional ability.

Claim 22. An endotracheal intubation device according to claim 21, an alternate emergency back up cell power source is possible upon draining of rechargeable power source as an enhanced safety mechanism.